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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,715	11/30/2001	John Davis	052-0005	7208
29906	7590	10/04/2005	EXAMINER	
INGRASSIA FISHER & LORENZ, P.C. 7150 E. CAMELBACK, STE. 325 SCOTTSDALE, AZ 85251			CHANG, RICHARD	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/998,715

Applicant(s)

DAVIS, JOHN

Examiner

Richard Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 8-11, 12-13, 26-29 and 31-34 is/are rejected.
- 7) ☒ Claim(s) 2-5, 7, 14-25, 30 and 35-38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/26/01
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 6 and 8-11 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US patent No. 6,618,397 ("Huang").

Regarding claims 1, 6, Huang teaches a packet encapsulation compression system and method for communicating IPsec tunnel packets with compressed inner headers (HC header) (see Fig. 8A) comprising:

storing an inner IP header and an inner protocol header from an initial IPsec tunnel packet in a context sub-table (520 database) at a destination tunnel device (compression association) (See Fig. 5A, Col. 2, lines 8-33),

for a subsequent IPsec tunnel packet, generating at the source tunnel device (500) a compressed inner header from the inner protocol header of the subsequent IPsec tunnel packet (536 as compression processor) (consecutive packet),

performing a operation on at least one of the compressed inner header, a payload field and a padding field of the subsequent IPsec tunnel packet (consecutive packet) to generate an encapsulated portion (534 as encapsulation processor), and

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replacing at least one of the inner IP header, the inner protocol header, the payload field and the padding field of the subsequent IPSec tunnel packet with the encapsulated portion to generate an IPSec tunnel packet with compressed inner headers (HC header) (See Fig. 7, Col. 2, lines 8-33) .

Regarding claims 8-11, Vairavan further teaches that full header is used to compress the minimum deviation between the prior and subsequent packet (See Col. 2, lines 13-25).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12-13, 26-29 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent US patent No. 6,618,397 ("Huang") in view of US patent application publication No. 2002/0083344 A1 ("Vairavan").

Regarding Claims 26 and 31, as discussed above, Huang teaches substantially all the claimed invention but did not disclose expressly the particular application involving limitations of "a security processor to perform a security operation on the compressed inner header, a payload field and a padding field of the IPSec tunnel packet to generate an encapsulated portion".

Vairavan teaches a software up-gradable integrated intelligent inter/intra networking device (tunnel device for communicating IPSec tunnel packets with compressed inner headers) with an additional security processor (235) to perform a security operation on the compressed inner header, a payload field and a padding field of the IPSec tunnel packet to generate an encapsulated portion (See Fig. 4, page. 5; paragraph [0062]).

A person of ordinary skill in the art would have been motivated to employ Vairavan in Huang in order to obtain a packet encapsulation compression system and method for communicating IPSec tunnel packets with compressed inner headers and to take advantage of including an additional security processor to perform a security operation on the compressed inner header, a payload field and a padding field of the IPSec tunnel packet to generate an encapsulated portion in claims 26 and 31.

The suggestion/motivation to do so would have been to include an additional security processor to perform a security operation on the compressed inner header, a payload field and a padding field of the IPSec tunnel packet to generate an encapsulated portion, as suggested by Vairavan in page. 5, paragraph [0062]. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Vairavan with the Huang to obtain the inventions specified in claims 26 and 31.

Regarding claim 12-13, these claims have limitation that is similar to those of claim 1 and Vairavan further teaches the authentication operation (405) (See Fig. 4,

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page. 8, paragraph [0110]), thus it is rejected with the same rationale applied against claim 1 above.

Regarding claim 27 and 32, these claims have limitation that is similar to those of claims 26 and 31, thus it is rejected with the same rationale applied against claims 26 and 31 above.

Regarding claim 28 and 33, these claims have limitation that is similar to those of claims 26 and 31, thus it is rejected with the same rationale applied against claims 26 and 31 above.

Regarding claim 29 and 34, these claims have limitation that is similar to those of claims 26 and 31, thus it is rejected with the same rationale applied against claims 26 and 31 above.

### ***Allowable Subject Matter***

5. Claims 2-5, 7, 14-25, 30 and 35-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if no art rejection can be applied.

### ***Examiner's Statement of Reasons for Allowance***

6. The following is an examiner's statement of reasons for allowance:

The prior art along or in combination fails to teach or make obvious the following limitations:

"the IPSec tunnel packet with compressed inner headers includes a tunnel header, an IPSec header, the encapsulated portion, and an authentication code, the method further comprising: at the destination tunnel device, identifying a security association database entry for the tunnel using a security policy index number in the IPSec header; at the destination tunnel device, decrypting the encapsulated portion to determine at least one of the compressed inner protocol header and the padding field, the padding field including a context sub-table identifier to identifies a context sub-table associated with the security association database entry; at the destination tunnel device, retrieving at least one of the inner IP header and the inner protocol header for the subsequent IPSec tunnel packet from the context sub-table; and recreating the subsequent IPSec tunnel packet using the inner IP header and inner protocol header retrieved from the context sub-table" as recited in the dependent claim 2, and

"performing a second operation on the encapsulated portion of the IPSec tunnel packet with compressed inner headers to determine the compressed inner protocol header and the padding field, the padding field including a context sub-table identifier to identify a context sub-table; retrieving the inner IP header and the inner protocol header for the IPSec tunnel packet from the context sub-table; and recreating the IPSec tunnel packet with full inner headers using the IP header and inner protocol header retrieved from the context sub-table" as recited in the dependent claims 7, 30 and 35.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chang whose telephone number is (571) 272-3129. The examiner can normally be reached on Monday - Friday from 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*RC*  
rkC

Richard Chang  
Patent Examiner  
Art Unit 2663

*[Signature]*  
9/20/05  
DERRICK FERRIS  
PATENT EXAMINER